# AMIODARONE DURING TRANSVENOUS ELECTRICAL CARDIOVERSION OF ATRIAL FIBRILLATION IN HORSES TO REDUCE CARDIOVERSION THRESHOLD OR PREVENT IMMEDIATE RECURRENCE

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Amiodarone, a class III anti-arrhythmic drug, has been used in equine and human medicine to treat atrial fibrillation (AF). The aim of this retrospective study was to report the effect of amiodarone administered IV during transvenous electrical cardioversion (TVEC) in case of failure to restore sinus rhythm (SR) or immediate recurrence of AF (IRAF). Data from 11 Warmblood horses with AF receiving amiodarone (5mg/kg over 30 minutes) during the TVEC procedure were reviewed. Mean age was 9.5 years. AF duration varied from two weeks to 1.5 year. Mild, moderate or severe mitral (n=8), tricuspid (n=10) and aortic (n=4) valvular regurgitations were present. Five horses had left atrial dilatation. TVEC was performed using 'Guelph' catheters (n=5) or 'Gaeltec' catheters (n=6). When TVEC, using energy levels of 150 to 360J with 50J increments, failed to restore SR (n=7), amiodarone was administered. SR could be restored (Fig.1) in 4 horses where initial TVEC failed, with a median of 1 (range 1-6) shock at 360J. In IRAF cases (n=4), amiodarone was administered after a median number of 3.5 (range 3-4) relapses within a median of 9 (range 0.05-30) minutes after initial cardioversion. All IRAF cases were discharged in SR. No side effects were noted except for a transient decrease in blood pressure during amiodarone infusion (n=8). These results suggest that the combined use of IV amiodarone with TVEC can increase success rates in case of treatment failure or IRAF.

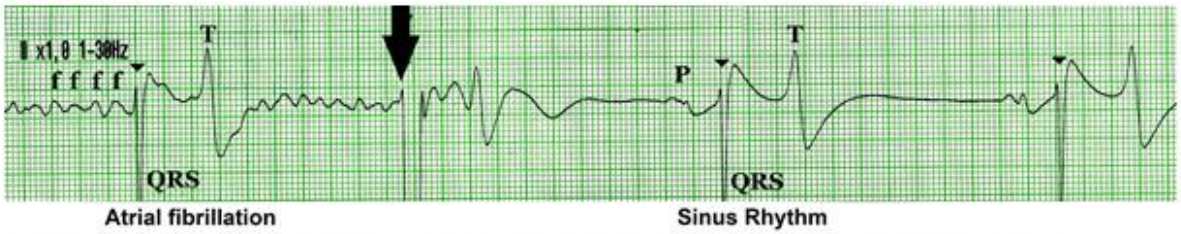


Figure 1: cardioversion to sinus rhythm. Black arrow indicates when the shock, synchronized with the R wave, is delivered.

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